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ABSTRACT

A measurement of behavioral effectiveness in a longitudinal study of children in urban classrooms is presented. The specific nature of behavioral difficulties from kindergarten to third-grade, the stability of behavior patterns over this four year period, the relation between behavioral effectiveness and traditional measures of achievement success, and the use of behavioral effectiveness measures as a means of assessing program impact are discussed. Attention is focused on: (1) the degree to which children become more (or less) effective in coping with classroom demands, over their first four years of school, (2) correlates of effective behavior, (3) the degree to which prediction of later success might have been accomplished, and (4) the relevance of such data to programming for children. (Author)

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ABSTRACT

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SYMPOSIUM TITLE: Behavioral Effectiveness of Children in the Classroom: Concept, Application, and Implications for Regular and Head Start-Follow-Through Classrooms

PRESENTATION II: Application

PARTICIPANT: Marshall Swift, Ph.D.
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PRESENTATION TOPIC: The Application of a Behavioral Effectiveness Measure in a Longitudinal Study

This presentation will focus upon a measurement of behavioral effectiveness in a longitudinal study of children in urban classrooms. Discussed will be the specific nature of behavioral difficulties from kindergarten to third grade, the stability of behavior patterns over this four year period, the relation between behavioral effectiveness and traditional measures of achievement success, and the use of behavioral effectiveness measures as a means of assessing program impact with a specific eye toward the Head-Start, Follow-Through programs. Attention will be paid to the degree to which children become more (or less) effective in coping with classroom demands over their first four years of school, correlates of effective behavior, the degree to which prediction of later success might have been accomplished, and the relevance of such data to programming for children.

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PRESENTATION TOPIC: The Application of a Behavioral Effectiveness Measure in a Longitudinal Study

In cooperation with the School District of Philadelphia we initiated in October, 1968 a seven-year longitudinal study of classroom behavioral effectiveness. Following meetings with the then associate superintendent (now superintendent), and the eight district superintendents, 29 schools were identified from which a sample of over 600 children were to be randomly selected. The schools included were located in or adjacent to the Catchment Area of the Hahnemann Hospital Community Mental Health Center. This area has the highest priority of need for special educational services for children and youth in the State of Pennsylvania.

Within the randomized design for pupil selection, two criteria were established: 1) half of the children must have attended a preschool (Head Start) program, and 2) boys and girls must be equally represented in both Head Start and Non-Head Start groups. In the 29 schools, 56 kindergarten teachers agreed to take part as the raters of classroom behavioral effectiveness. At the present time six repeated measures of behavior have been gained as the children have moved through

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kindergarten, first, second, and third grades. At the third grade level 514 or 78% of the original children remain in the project but are now spread out over 108 schools, including the original 29, in approximately 250 classrooms. That briefly is the background to the longitudinal study.

The purposes of the project are: 1) to identify the earliest signs of behavioral difficulty of children who later manifest learning, behavioral and emotional problems, 2) to describe specific behaviors and behavior patterns of these high-risk children in a manner which would aid the educator to develop behavioral curriculum with which to intercede and to decrease the probability of these difficulties, or to enhance the probability of later success, and 3) to assess the utility of a behavioral effectiveness measure as a means to evaluate the effect of preschool Head Start and subsequent special program experience (e.g., Follow-Through).

As noted by George Spivack in his presentation, a major aim of our research is to provide the teacher with a feasible instrument for identifying a child's pattern of achievement-related behavioral effectiveness. The assumption is that once the specific behavior pattern of the child is clearly identified this information should aid the teacher in developing behavioral curriculum for <u>opening the classroom</u> to children with differing patterns of behavior. After a period of time the teacher can reassess any child's behavior in order to evaluate the impact of the classroom approaches employed. A second aim is to provide the administrator with a method for evaluating the progress of groups of children who receive a specialized

program, by assessing the impact of the program over-time upon the behavioral effectiveness of the children. A third aim is to provide the teacher - trainer with information which might aid future teachers to recognize and understand the nature and significance of specific behavior patterns and their implications for ongoing curriculum building.

The rationale for this research comes in part from the evidence of others that the nature of overt behavior of the child is one of the prime predictors of his later school adjustment, that children rated by their teachers as maladapting early in school run a high risk of becoming symptomatic in subsequent years and that behavior problem children underachieve.

Because of the fact that we have completed only four of seven years of the longitudinal project, data analysis is in the preliminary stage. Nevertheless, from initial analyses we have had some interesting and significant findings involving 1) the relationship between a specific pattern of behavioral ineffectiveness in the earliest school year and the occurrence of this and other behavior patterns in later years, 2) the early identification of behaviors of children with later readiness and achievement limitations, and 3) the behavior of children from Head Start and Follow-Through programs.

An example of the relation between a specific kindergarten behavior pattern, and third grade behavior, involves the dimension described earlier as external reliance. When such behaviors occurred and were accompanied by other dimensions of behavioral ineffectiveness to form a particular pattern,

67% of the children with this pattern in kindergarten showed at the least, these same problems over three and half years later in the third grade, and 82% showed these and/or other moderate to severe difficulties. This group is comprised of 15% of the total sample of 514 children. Their rate of third grade behavioral ineffectiveness and over-reliance was more than twice that of a matched comparison group from the same urban sample.

A second set of interesting results, the relation between behavior and reading achievement, was assessed by classifying each child into one of eight behavior profile types, defined mainly by the statistical cluster analysis described briefly in the previous presentation. From the data of earlier cross-cultural studies in France and the United States, it was possible to define effective, moderate to high achieving, and ineffective low or poorly achieving behavior cluster groups. Each of 421 children who took a reading readiness test in the ninth month of kindergarten, was classified into an effective or ineffective catagory based upon the child's behavior pattern six months earlier at the beginning of kindergarten. We found that 82% of the boys and 76% of the girls with a non-effective behavior pattern at the beginning of kindergarten scored below the readiness test median near the end of kindergarten. When kindergarten and first grade behavior patterns were combined to form effective, non-effective and unstable behavior groups over 75% of both boys and girls in the non-effective group scored below the median for reading 18 months later at the end of second grade.

It seems to us that the implications for curriculum building and teacher training are clear. It is evident that children displaying non-effective behavior patterns very early in their school lives, are likely to exhibit later difficulties in both academic and behavioral spheres. This is especially true in the absence of a carefully planned program of problem identification, application of specific teaching strategies, and reassessment or evaluation of the effectiveness of the teacher approaches utilized.

A third area of investigation has been the nature of the difference in behavioral effectiveness of children with and without the Head Start preschool experience: The initial kindergarten behavior of children with Head Start experience was found to be more active, interactive and often disturbing to others, more impatient and eager to start an activity before getting instructions, more apt to belittle, make derogatory remarks such as "spelling is stupid" and refuse to do what is asked, more prone to blame external circumstances for difficulties and to say that the teacher doesn't help enough, never calls on him, and more prone to call out to, interrupt, to make irrelevant comments, and to tell stories which are exaggerated; <u>but</u>, they were also more apt to get the point of what was going on in the day-to-day give-and-take of the classroom and more able to apply what they had learned and to answer correctly when they were called upon to recite. Furthermore, they were more likely to show positive initiative in the classroom by bringing up ideas, taking part in discussions, and to show an active

imagination by talking about experiences in a colorful and interesting fashion.

In short, the patterns which emerged for the children with Head Start experience revealed that they were more social and verbal, as well as more physically active in the first months of kindergarten. The 300 Head Start children in the longitudinal study were more likely to contribute an idea, but also to make noise which interfered with the quiet work of others. They more often took part positively in discussion, but also verbalized frustration and anger. They were more likely to bring up relevant ideas and bring in materials which contributed to class activities, but also interrupted and called out in an irrelevant manner.

It appears that the children with preschool educational experience exhibited a wider range of behaviors in the kindergarten classroom than their peers. Some of these behaviors might militate against continued progress in school, if the curriculum for these children is not designed to consider the overall pattern of behavior which frequently indicates increased interest in and understanding of the classroom activities, as well as behavior which might be viewed as negative. If teachers view these behaviors only in terms of their disturbing, impatient and intrusive characteristics, they will miss the positive implications of the overall pattern of behavioral effectiveness.

Examining the issue of program impact further, approximately

15% of the children attended a specialized Follow-Through program from kindergarten through third grade. Half of these children also had had the preschool Head Start experience. A preliminary comparison was made of initial kindergarten and end of second grade behavioral effectiveness patterns of four groups: Those with both Head Start and Follow-Through, those with one but not the other of these programs, and those with neither program. The results indicate that: 1) the Head Start children began kindergarten as a group more apt to show one of the patterns which suggest behavioral effectiveness; 2) at the end of grade two, the Head Start and Follow-Through combination group showed the greatest increase, and had the largest percentage of children in effective behavior catagories, and 3) the group with neither Head Start nor Follow-Through had the lowest percentage of behaviorally effective children at both the kindergarten and the end of second grade.

Our longitudinal study of achievement related classroom behavior will continue in order to follow these children to the end of their elementary school years. This will allow us to assess the value of knowing early patterns of behavioral effectiveness as a means to identify children whose later behavior, emotional functioning, and academic achievement indicates that they represent a high-risk group for whom early intervention is crucial. It will also allow us to assess the long term impact of both Head Start and Follow-Through upon the behavior patterns of this sample of children.

As a final note, over the past three years we have been working with teachers at the elementary and high school levels

and searching the literature to define and describe curriculum in terms of alternative teaching strategies to match specific patterns of behavioral effectiveness. These are approaches aimed at aiding the teacher to work with a wider range of behaviors and thereby opening the regular classroom to a wider range of children. From our longitudinal data we are now convinced that certain early behavior patterns are indicative of both present and future learning and behavior difficulties and that without an understanding of these behavior patterns and a means of developing curriculum to increase children's effectiveness, little progress will be made in our quest to provide a successful school experience to large numbers of problemed children.

In the next presentation, Milt Goldberg, the Executive Director of Early Childhood Programs for the Philadelphia School District, will discuss the implications of these findings for training, curriculum development, and child and program evaluation.